

WHAT IS CLAIMED IS:

1 *Sub a1*

2 1. A method for processing a transport stream, the method
3 comprising:

4 (a) parsing the transport stream to derive multiple elementary streams
5 including associated program identifiers;

6 (b) using the associated program identifiers to determine
7 corresponding transfer locations in a host memory; and

8 (c) performing direct memory access transfers of the multiple
9 elementary streams to the corresponding transfer locations in the host memory.

1 2. The method according to claim 1, the method further comprising
2 transferring the multiple elementary streams to an end user system.

1 3. The method according to claim 2 wherein the end user system
2 comprises an audio-visual system and the step of transferring the multiple elementary
3 streams to an end user system comprises transferring the multiple elementary streams
4 through an audio-visual interface.

1 4. The method according to claim 2 wherein the end user system
2 comprises a networked computer system and the step of transferring the multiple
3 elementary streams to an end user system comprises transferring the multiple elementary
4 streams through a network interface.

1 5. The method according to claim 4 wherein the end user system
2 further comprises a world wide web browser.

1 6. The method according to claim 1 wherein the step of using the
2 associated program identifiers to determine corresponding transfer locations in a host
3 memory comprises:

4 (a) buffering each elementary stream in a first-in-first-out module; and

5 (b) assigning the transfer location in the host memory to the buffered
6 elementary stream according to a particular program identifier.

1 7. The method according to claim 1 wherein the direct memory access
2 transfer is performed between a local memory and the host memory.

1 8. The method according to claim 1 wherein the direct memory access
2 transfer is performed automatically to the host memory without storage in a local
3 memory.

1 9. A system for receiving and processing a transport stream, the
2 system comprising:

3 (a) a receiver configured to derive multiple data streams and
4 associated program identifiers from the transport stream; and

5 (b) a direct memory access (DMA) transfer engine within the receiver,
6 the DMA transfer engine being configured to initiate DMA transfers of the multiple data
7 streams to corresponding transfer locations in a host memory that are determined using
8 the associated program identifiers.

1 10. The system according to claim 9, the system further comprising an
2 interface connected to the receiver configured to transfer the multiple elementary streams
3 to an end user system.

1 11. The system according to claim 10 wherein the end user system
2 comprises an audio-visual system and the interface comprises an audio-visual interface.

1 12. The system according to claim 10 wherein the end user system
2 comprises a networked computer system and the interface comprises a network interface.

1 13. The system according to claim 12 wherein the end user system
2 further comprises a world wide web browser.

1 14. The system according to claim 9 further comprising a first-in-first-
2 out module within the receiver, the first-in-first-out module configured to buffer each
3 elementary stream,
4 wherein the receiver is configured to assign the transfer location in the host
5 memory to the buffered elementary stream according to a particular program identifier.

1 15. The system according to claim 9 wherein the DMA transfer engine
2 is configured to transfer the multiple data streams between a memory local to the receiver
3 and the host memory.

- 1 16. The system according to claim 9 wherein the DMA transfer engine
2 is configured to transfer the multiple data streams automatically from the receiver to the
3 host memory without storage in a memory local to the receiver.

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